

05-00534-02/AB-116U

10/081,820

IN THE CLAIMS:

Please amend the claims as indicated below. Amendments made in the amendment of March 27, 2006 are not indicated below.

**Claim 1 (currently amended):** A method of treating a patient with at least one of epilepsy, a metabolic disorder, a mood disorder, an anxiety disorder, chronic pain, a gastrointestinal disorder, hypertension, a cardiac disorder, a psychotic disorder, a cognitive disorder, dementia, an eating disorder, and obesity, a sleep disorder, an endocrine disorder, a movement disorder, and headache, the method comprising:

providing at least one leadless stimulator having at least two electrodes disposed thereon;

implanting the at least one stimulator adjacent to at least one portion of the patient's vagus nerve;

generating stimulation pulses with the stimulator in accordance with one or more stimulation parameters; and

delivering the stimulation pulses to nerve fibers adjacent to at least one portion of the vagus nerve.

**Claim 2 (original):** The method of Claim 1 wherein the at least one portion of the vagus nerve comprises a portion distal to at least a superior cervical cardiac branch of the vagus nerve.

**Claim 3 (previously presented):** The method of Claim 1 wherein the at least one portion of the vagus nerve comprises a portion distal to at least an inferior cervical cardiac branch of the left vagus nerve.

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**Claim 4 (previously presented):** The method of Claim 1 wherein the at least one portion of the vagus nerve comprises a portion distal to at least a thoracic cardiac branch of the vagus nerve.

**Claim 5 (original):** The method of Claim 1 wherein the stimulation pulses are delivered at less than about 50 to 100 Hz.

**Claim 6-7 (canceled)**

**Claim 8 (original):** The method of Claim 1 wherein the stimulation pulses are delivered at greater than about 50 to 100 Hz.

**Claims 9-13 (canceled)**

**Claim 14 (original):** The method of Claim 1 further comprising

providing at least one sensor;

using the at least one sensor to sense a physical condition; and

determining the stimulation parameters based upon the sensed condition.

**Claim 15 (original):** The method of Claim 14 wherein the at least one sensor is a part of the stimulator.

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**Claim 16 (original):** The method of Claim 1 further comprising providing and implanting more than one stimulator.

**Claims 17-35 (canceled)**

**Claim 36 (previously presented):** The method of Claim 1 wherein the at least one portion of the vagus nerve comprises at least one or more of a pharyngeal branch and a laryngeal branch of the vagus nerve.

**Claim 37 (previously presented):** The method of Claim 1 wherein the at least one portion of the vagus nerve comprises at least one vagus nerve branch innervating the patient's pancreas.

**Claim 38 (currently amended):** A method of treating a medical disorder of a patient, said method comprising:

applying an electrical stimulation current to a vagus nerve within said patient with an implanted leadless stimulator having at least two electrodes disposed thereon in accordance with one or more stimulation parameters to treat said medical disorder;

wherein said medical disorder comprises at least one or more of epilepsy, a metabolic disorder, a mood disorder, an anxiety disorder, chronic pain, a gastrointestinal disorder, hypertension, a cardiac disorder, a psychotic disorder, a cognitive disorder, dementia, an eating disorder, obesity, and an endocrine disorder, a sleep disorder, a movement disorder, and headache.

**Claims 39-40 (canceled)**

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**Claim 41 (previously presented):** The method of claim 38, further comprising sensing at least one physical condition related to said medical disorder and using said at least one sensed physical condition to adjust one or more of said stimulation parameters.